

REMARKS

Reconsideration and allowance are respectfully requested.

Newly added claims 15-24 are similar in scope to cancelled claims 9-14. No new matter has been added. Entry and allowance are requested.

Claims 15-24 are patentable under 35 U.S.C. 102(b) over Sato (US patent 5,137,265).

This application relates to a device that targets the sorting of large volumes of sheets. FIG. 7(C), particularly, shows a structure for that specific purpose.

Specifically, this application relates to an apparatus for shifting sheets on a processing tray (4) that temporarily stacks sheets, and sorts them into sets. Established are capacity recognition means (112, 115 and 116) for recognizing the volume of sheets that have been stacked on the processing tray (4).

Further provided are control means (110 and 111) that discharge sheets that are already stacked in the processing tray to a stacking tray (2) when these recognition means (112, 115 and 116) recognize that the volume of sheets stacked on the processing tray (4), and at the same time continue the operation of the shift means (17) so that position of the subsequent sheets is the same on the processing tray (4) as those sheets that had reached a predetermined number and had been discharged first, or earlier. This allows sheets to be sorted in groups.

Furthermore, if sorting 50 sheets on an apparatus whose

processing tray (4) can only store 30 sheets, shifting in the width direction of the sheets on the processing tray is temporarily cancelled, and a sheet set that has already been shifted and stacked on the processing tray is discharged to the stacking tray (2) emptying the processing tray.

The system then shifts the remaining 20 sheets from sheet 31 to 50 to the same position as the 30 sheets that have already been discharged. When all 50 sheets of that set have been discharged, the system discharges them to the stacking tray (2). It is possible with this apparatus to sort sheets that exceed the number of sheets that the processing tray can accommodate when sorting sheets on the processing tray (4) by moving them in groups in the sheet width direction.

The examiner states that Sato shows all the structure required, namely the processing tray 77, the stacking tray 103, the sheet shifting means 80 and sensors S5 and S6 for detecting sheets. However, Sato is silent with regard to temporarily discharging sheets to a stacking tray when the storage capacity of the processing tray is exceeded, and then shifting to stack subsequent sheets in the same position on the processing tray when sorting sheets.

In other words, when sorting sheets using the apparatus disclosed by the 265 patent, sheets are not stacked on the processing tray (77) that temporarily stacks sheets, as shown in FIGs. 4, 5 and 6, rather the stacking tray 103 itself is shifted to the left or right by moving means 208 that are established

below this stacking tray 103.

Therefore, while it obviously does not shift sheets on the processing tray to sort them, as is taught in the present application, the Sato patent also does not mention having control means for canceling the shifting operation by detection of the volume of sheets stacked on the processing tray, discharging a sheet set to the stacking tray and then shifting after that discharge to continue until a predetermined number of sheets of that set has been reached at the same position on the processing tray.

Therefore, the present application uniquely sorts large volumes of sheets without having to shift the comparatively heavy stacking tray 103, as taught by the Sato patent. Claims 15-24 are patentable over Sato.

Claims 15-24 are patentable under 35 U.S.C. 102(b) over Rizzolo (US patent 5,288,062).

The examiner contends that the Rizzolo apparatus is also provided with a processing tray 90, a stacking tray 92, a sheet shifting means 96 and sensor means for detecting the height level of the sheets stacked on the processing tray 90. However, Rizzolo is silent with regard to temporarily discharging sheets on the processing tray to the stacking when using the processing tray for sorting and the storage capacity of the processing tray is exceeded, then shifting to the same position on the processing tray for subsequent sheets of the same set.

Specifically, although the sensor 161 detects sheets stacked on the compiling (processing) tray 90, it is not for the detection of the limit of storage of sheets on the processing tray. Rather, it is to detect the stack height to adjust the position of the flexible registration (transport) belt 84 that feeds sheets to be at the right height for the sheets. Therefore, nothing disclosed in Rizzolo relates to sorting of sheets.

Furthermore, there is no suggestion in Rizzolo for sorting sheets by shifting at the processing tray, which is described in the present application, nor are there control means for the same type of shifting operation that terminates the shifting operation by detecting the storage capacity of the processing tray, discharging sheets to a stacking tray, and the continuing with the same shifting operation until a predetermined number of sheets is reached on the processing tray after that discharge. Claims 15-24 are patentable over Rizzolo.

Therefore, neither Sato nor Rizzolo anticipates the present invention. Nothing in the references teaches or suggests the claimed features. Therefore, the references cannot anticipate nor render obvious the present invention as claimed.

Nothing in the references, either singly or in combination, teaches or suggests the claimed features. Therefore, the references cannot anticipate nor render obvious the present invention as claimed.

Since Applicant has presented a novel, unique and non-obvious invention, reconsideration and allowance are respectfully requested.

Respectfully,



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